

Kennecott Utah Copper
4700 Daybreak Parkway
South Jordan, Utah 84095
801-569-7128 (o)
801-569-7192 (f)

Kelly L. Payne, P.G.
Manager - Environment

M/035/0015
cc: Leslie, Lynn
Task: 4359

7 September 2011

VIA US MAIL AND EMAIL

Mr. Paul Baker
Division of Oil, Gas & Mining
Utah Department of Natural Resources
P.O. Box 145801
Salt Lake City, Utah 84114-5801

Subject: M/035/015, M-035-0002, Kennecott North Tailing Impoundment, Updated Seed Mix

Dear Mr. Baker:

Kennecott Utah Copper (KUC) is proposing to update its seed mix from the original seed mix in the approved Notice of Intent, submitted March 15, 1996, for the Tailings Modernization Project, North Impoundment Expansion, M/035/015. This proposed seed mix has been developed based upon observed field conditions and in association with Granite Seed Company and Golder Associates who have provided technical review and guidance on this matter.

Please find attached Form MR-REV for permit number M/035/015, North Tailing Impoundment.

If you have any questions about this proposed revision, please contact Zeb Kenyon at 801.569.6035.

Regards,



Kelly L. Payne, P.G.
Manager - Environment

cc: Ms. Leslie Heppler, UDOGM, by email

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Application for Mineral Mine Plan Revision or Amendment

Operator: Kennecott Utah Copper LLC			
Mine Name: North Tailing Impoundment			File Number: M/035/015
Provide a detailed listing of all changes to the mining and reclamation plan that will be required as a result of this change. Individually list all maps and drawings that are to be added, replaced, or removed from the plan. Include changes of the table of contents, section of the plan, pages, or other information as needed to specifically locate, identify and revise or amend the existing Mining and Reclamation Plan. Include page, section and drawing numbers as part of the description.			
DETAILED SCHEDULE OF CHANGES TO THE MINING AND RECLAMATION PLAN			
			DESCRIPTION OF MAP, TEXT, OR MATERIALS TO BE CHANGED
9 ADD	<input checked="" type="checkbox"/> REPLACE	9 REMOVE	Page 20 of the consolidated permit application (March 15, 1996) with a revised Page 20(August 23, 2011) detailing seed mix (attached).
9 ADD	9 REPLACE	9 REMOVE	
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I hereby certify that I am a responsible official of the applicant and that the information contained in this application is true and correct to the best of my information and belief in all respects with the laws of Utah in reference to commitments and obligations, herein.

Kelly Payne
Print Name

Kelly Payne, MGR-ENVIRONMENT
Sign Name, Position

7 SEPT 2011
Date

Return to:

State of Utah
Department of Natural Resources
Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801
Phone: (801) 538-5291 Fax: (801) 359-3940

FOR DOGM USE ONLY:

File #: M/ /

Approved: _____

Bond Adjustment: from (\$) _____
to \$ _____

Typical seed mixes and soil amendments to be used in the reclamation program are outlined below:

North Tailings Seed Mix (uncovered – seed applied direct to tailings)

SPECIES	PLS LBS/ACRE (DRILLED RATE)	APPLICATION METHOD
Tall wheatgrass (<i>Elytrigia elongata</i>) 'Alkar'	4.0	Drill
Smooth brome (<i>Bromus inermis</i>) 'Manchar'	3.0	Drill
Slender wheatgrass (<i>Elymus trachycaulus</i> ssp. <i>trachycaulus</i>) 'Pryor'	3.0	Drill
Sheep fescue (<i>Festuca ovina</i>) 'Covar or Marco Polo'	0.75	Drill
Bottlebrush squirreltail (<i>Elymus elymoides</i>)	1.5	Drill
Fourwing saltbush (<i>Atriplex canescens</i>)	1.0	Drill
Sand dropseed (<i>Sporobolus cryptandrus</i>)	0.5	Broadcast
Sand sage (<i>Artemisia filifolia</i>)	0.50	Broadcast
Barley (<i>Hordeum vulgare</i>)	15.0	Drill
Cereal rye (<i>Secale cereale</i>)	15.0	Drill
TOTAL	44.25	

Notes: Broadcast seeding may be done initially or within the following year

Seed mix developed in partnership with Granite Seed Company, Golder Associates and Kennecott Utah Copper

Soil amendments: 2:1 Ratio, Woodchip and Biosolids @ 30 tons/acre total

16-16-8 Fertilizer @ 100 lbs/acre (secondary application as needed)

North Tailings Seed Mix (covered – seed applied to growth media cover)

SPECIES	PLS LBS/ACRE (DRILLED RATE)	APPLICATION METHOD
Tall wheatgrass (<i>Elytrigia elongata</i>) 'Alkar'	2.0	Drill
Crested wheatgrass (<i>Agropyron desertorum</i>) 'Hycrest'	1.25	Drill
Western wheatgrass (<i>Pascopyrum smithii</i>) 'Arriba'	2.0	Drill
Russian wildrye (<i>Psathyrostachys juncea</i>) 'Bozoisky'	2.0	Drill
Indian ricegrass (<i>Achnatherum hymenoides</i>) 'Nezpar/Rimrock'	1.25	Drill
Blue grama (<i>Bouteloua gracilis</i>) 'Alma/Lovington/Hachita'	0.50	Drill
Falcata alfalfa (<i>Medicago sativa</i> spp. <i>falcata</i>)	0.25	Broadcast
Blue flax (<i>Linum perenne</i>)	0.25	Drill
Fourwing saltbush (<i>Atriplex canescens</i>)	1.0	Drill
Shadscale (<i>Atriplex confertifolia</i>)	0.5	Drill
Nevada ephedra (<i>Ephedra nevadensis</i>)	0.5	Drill
Rubber rabbitbrush (<i>Ericameria nauseosa</i>)	0.5	Broadcast
Wyoming big sagebrush (<i>Artemisia tridentata</i> ssp. <i>wyomingensis</i>)	0.5	Broadcast
Barley (<i>Hordeum vulgare</i>)	15.0	Drill
Cereal rye (<i>Secale cereale</i>)	15.0	Drill
TOTAL	42.50	

Notes: Broadcast seeding may be done initially or within the following year

Seed mix developed in partnership with Granite Seed Company, Golder Associates and Kennecott Utah Copper

Soil amendments: Straw Mulch @ 10 to 20 tons/acre

18-18-18 Fertilizer @ 200 lbs/acre (primary)

18-18-18 Fertilizer @ 100 lbs/acre (secondary application as needed)